

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 03/27701

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B01D53/00 B01D47/00 F23J15/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B01D F23J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 691 153 A (THE BABCOCK & WILCOX COMPANY) 10 January 1996 (1996-01-10) column 4, line 5 - line 54; figure 3	1,3-8, 16,17
X	US 5 080 696 A (DENIS MARCHAND) 14 January 1992 (1992-01-14) column 2, line 32 -column 4, line 17; figure 1	1,3,4, 16,17
X	FR 2 586 204 A (PAUL TISSANDIER) 20 February 1987 (1987-02-20) page 4, line 15 -page 6, line 10; figure 1	1,3-5,8, 9,16,17

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

16 December 2003

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23/12/2003

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Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 691153	A	10-01-1996	US 5510087 A	23-04-1996
			EP 0691153 A1	10-01-1996
			JP 8105620 A	23-04-1996
US 5080696	A	14-01-1992	FR 2655564 A1	14-06-1991
			CA 2031432 A1	09-06-1991
			DE 69030300 D1	30-04-1997
			DE 69030300 T2	10-07-1997
			EP 0432074 A1	12-06-1991
			IE 904429 A1	19-06-1991
FR 2586204	A	20-02-1987	FR 2586204 A1	20-02-1987

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